

ABSTRACT

A wavelength plate laser optical system which is a wavelength plate using a stretched and oriented film containing a cyclic olefin based resin, and which has values of the formula (a): $\text{Re}(\lambda)/\lambda$ (wherein λ represents a wavelength (nm) of the laser beam; and $\text{Re}(\lambda)$ represents a retardation value (nm) of the laser beam having transmitted through the wavelength plate) against two laser beams having a different wavelength such that the value is $((0.2 \text{ to } 0.3) + X)$ for a first laser beam and that the value is $((0.8 \text{ to } 1.2) + Y)$ for a second laser beam, respectively (wherein X represents 0 or the number of an integral multiple of 0.5; and Y represents 0 or an integer of 1 or more). It is possible to provide a wavelength plate for optical information recording and reproducing devices, which is excellent in initial characteristics, is hardly affected by the use environment and the manufacturing environment, is excellent in long-term reliability, and is corresponding to two laser beams having a different wavelength.